

Update on EPA Rule Making

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November 13, 2009



Summary of Presentation



- Climate Change - Regulatory Initiatives
 - Endangerment Finding
 - GHG Reporting Rule
 - Renewable Fuel Standard Program (RFS2)
 - California Greenhouse Gas Waiver Request
 - Light-Duty Vehicle GHG Emissions Standards
 - PSD and Title V GHG Tailoring Rule

More info: www.epa.gov/climatechange/initiatives/

Summary of Presentation (con't)



- Air Quality - Regulatory Initiatives
 - **Schedule for Ongoing NAAQS Reviews**
 - Designations for the 2006 PM_{2.5} standard
 - Attainment SIP for 1997 PM_{2.5} standard
 - **Regional Haze SIPs**
 - Reconsideration of 2008 Ozone Standard
 - CAIR Replacement Rule
 - Ongoing Implementation of 1997 Ozone Standard
 - Section 185 fees
 - **New Control Technique Guideline (CTG) documents**
 - Attainment demonstrations
- Questions/Answers
 - Not an opportunity to provide comments to EPA on pending proposals

Endangerment: Background



- April 2, 2007- In *Massachusetts v. EPA*, the Supreme Court found that greenhouse gases are air pollutants covered by the Clean Air Act
- EPA was required to determine whether:
 - GHG emissions from new motor vehicles cause or contribute to air pollution;
 - This air pollution may reasonably be anticipated to endanger public health or welfare; or

Endangerment Findings



- April 17, 2009, Administrator signed a proposal with two distinct findings regarding greenhouse gases under CAA section 202(a)
 - **Proposed Endangerment Finding:** six key greenhouse gas threaten the public health and welfare
 - **Cause or Contribute Finding:** Combined emissions of CO₂, CH₄, N₂O, and HFCs from motor vehicles contribute to the atmospheric concentrations of these key greenhouse gases and hence to the threat of climate change

Endangerment: Next Steps



- 60 day public comment period from date of publication in the Federal Register (April 24-June 23)
- Two public hearings held
 - May 18, 2009 —Arlington, VA
 - May 21, 2009 —Seattle, WA
- Final rule: Sent to OMB on Nov. 6 for 90 day review
- General Information and FAQs available on website at:
www.epa.gov/climatechange/endangerment.html

Mandatory Greenhouse Gases Reporting Rule - Background



- Directed by Congress in 2008 Appropriations Act
- Proposal signed March 10, 2009
- Public Comment Period (April 10 - June 10, 2009)
- Final rule signed September 22, 2009
- Published in Federal Register October 30, 2009

MRR - Purpose of the Rule



- Requires reporting of greenhouse gas (GHG) emissions from all sectors of the economy in the United States
- Provides accurate and timely data to inform future climate change policies and programs
- Does not require control of GHG

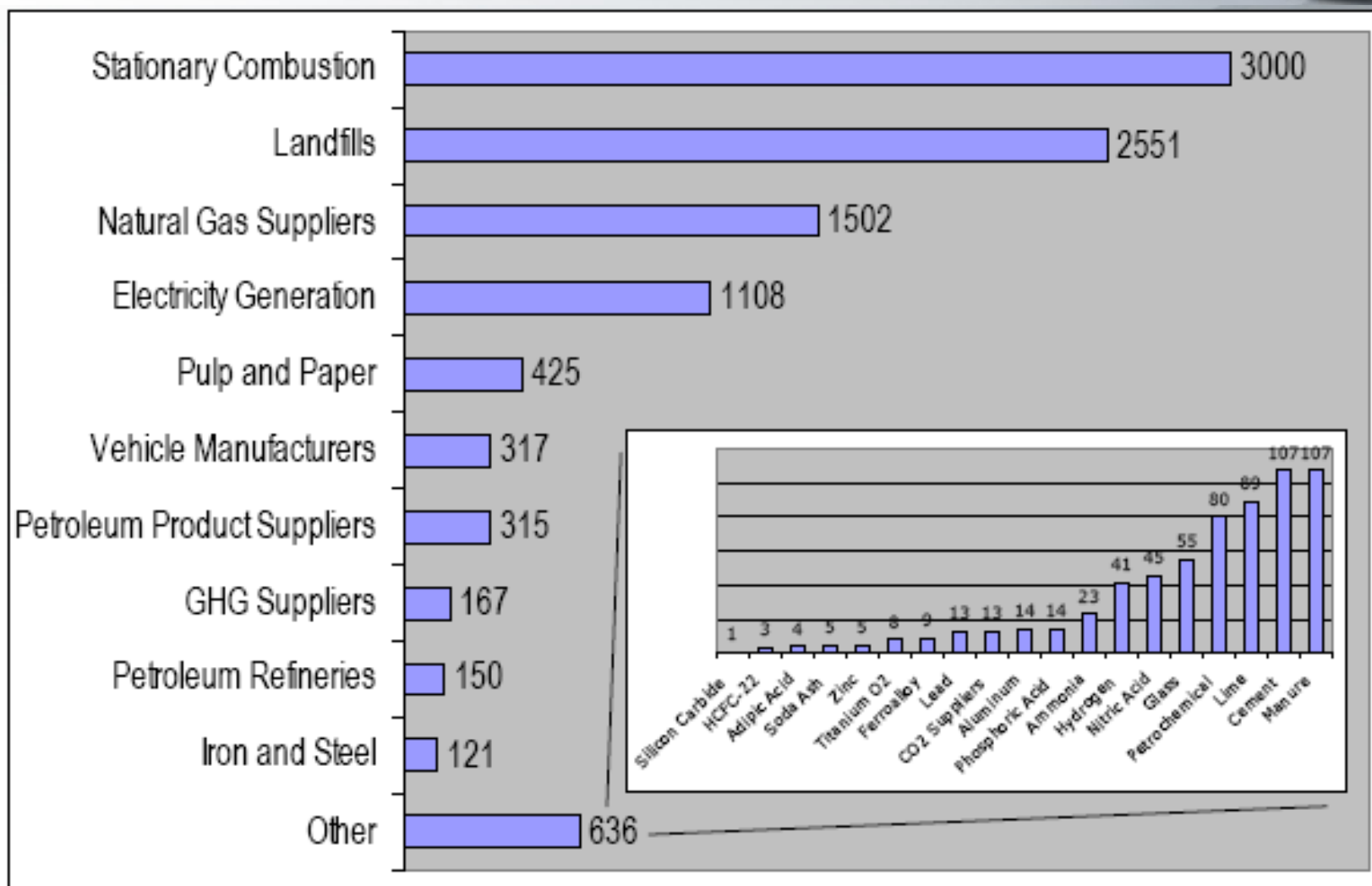
Source Categories in the MRR*



Upstream Sources (5 types of suppliers of fuel and industrial GHG)	<ul style="list-style-type: none"> • Suppliers of Coal-based Liquid Fuels • Suppliers of Petroleum Products • Suppliers of Natural Gas and Natural Gas Liquids • Suppliers of Industrial GHGs • Suppliers of Carbon Dioxide (CO₂) 		
Downstream Sources (25 source categories)	<table border="0"> <tr> <td> <ul style="list-style-type: none"> • General Stationary Fuel Combustion Sources • Electricity Generation • Adipic Acid Production • Aluminum Production • Ammonia Manufacturing • Cement Production • Ferroalloy Production • Glass Production • HCFC-22 Production and HFC-23 Destruction • Hydrogen Production • Iron and Steel Production • Lead Production </td><td> <ul style="list-style-type: none"> • Lime Manufacturing • Miscellaneous Uses of Carbonates • Nitric Acid Production • Petrochemical Production • Petroleum Refineries • Phosphoric Acid Production • Pulp and Paper Manufacturing • Silicon Carbide Production • Soda Ash Manufacturing • Titanium Dioxide Production • Zinc Production • Municipal Solid Waste Landfills • Manure Management </td></tr> </table>	<ul style="list-style-type: none"> • General Stationary Fuel Combustion Sources • Electricity Generation • Adipic Acid Production • Aluminum Production • Ammonia Manufacturing • Cement Production • Ferroalloy Production • Glass Production • HCFC-22 Production and HFC-23 Destruction • Hydrogen Production • Iron and Steel Production • Lead Production 	<ul style="list-style-type: none"> • Lime Manufacturing • Miscellaneous Uses of Carbonates • Nitric Acid Production • Petrochemical Production • Petroleum Refineries • Phosphoric Acid Production • Pulp and Paper Manufacturing • Silicon Carbide Production • Soda Ash Manufacturing • Titanium Dioxide Production • Zinc Production • Municipal Solid Waste Landfills • Manure Management
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Mobile Sources	<ul style="list-style-type: none"> • Vehicles and engines outside of the light-duty sector (light-duty in NPRM to <i>Establish Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Fuel Economy Standards</i>) 		

* EPA delayed inclusion of the following source categories as we consider the comments and options: Electronics Manufacturing, Ethanol Production, Fluorinated GHG Production, Food Processing, Magnesium Production, Oil and Natural Gas Systems, Sulfur Hexafluoride (SF₆) from Electrical Equipment, Underground Coal Mines, Industrial Landfills, Wastewater Treatment, Suppliers of Coal

About 10,000 U.S. Facilities Covered



MRR - Key Elements of the Rule



- Annual reporting of GHG
 - CO₂, CH₄ (methane), N₂O (nitrous oxide), HFCs (hydrofluorocarbons), PFCs (perfluorocarbons), SF₆ (sulfur hexafluoride), Other fluorinated gases
- 25,000 metric tons CO₂e per year reporting threshold for most sources
- Monitoring begins January 1, 2010; first reports due March 31, 2011
- Direct reporting to EPA electronically
- EPA verification of emissions data

Renewable Fuel Standard Program (RFS2)



- EPA published **proposed rule on May 26, 2009**, under the Energy Independence and Security Act of 2007, to modify the Renewable Fuel Standard (RFS) program.
- Under RFS2, program will **increase the volume** of renewable fuel required to be blended into gasoline **from 9 billion** gallons in 2008 **to 36 billion** gallons by 2022.
- In 2022, the proposal would require:
 - 16 billion gallons of cellulosic biofuels;
 - 15 billion gallons annually of conventional biofuels;
 - 4 billion gallons of advanced biofuels; and
 - 1 billion gallons of biomass-based diesel.
- Comment period ended September 25, 2009
- Final Rule: EPA Spokesman **“by the end of this year”**

California Greenhouse Gas Waiver Request



- On **June 30, 2009**, EPA **granted a waiver** of Clean Air Act preemption **to California** for its greenhouse gas emission standards for motor vehicles beginning with the **2009 model year**.
- This decision withdraws and replaces EPA's previous March 6, 2008 Denial of California's waiver request.
- Decision also **allows 13 other states** and the District of Columbia to enforce the **same standards**.

Light-Duty Vehicle GHG Emissions Standards



- On **September 15, 2009**, EPA **proposed** the first-ever national greenhouse gas **(GHG) emissions standards** under the Clean Air Act; and Department of Transportation's National Highway Traffic Safety Administration (NHTSA) proposed Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act.
 - Proposal published September 28, 2009
 - Comment period ends November 27, 2009
- Proposed national program **would allow** automobile manufacturers to build a **single light-duty national fleet** that satisfies all requirements under **both Federal** programs and the standards of **California** and other states.

Light-Duty Vehicle GHG Emissions Standards - Con't



- Proposed National Program would apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, **covering model years 2012 through 2016**.
- They require these vehicles to meet an estimated combined average emissions level of 250 grams of CO₂ per mile, **equivalent to 35.5 MPG** if the industry meet this CO₂ level through fuel economy improvements.
- Finalizing regulations is **contingent upon** EPA finalizing both the **endangerment finding** and cause or contribute finding.
- To meet the statutory requirement that standards be completed 18 months before the model year begins Oct. 1, 2011, the rule would need to be **finalized by March 31, 2010**.

PSD and Title V GHG Tailoring Rule - Why the Tailoring Rule is needed



- By rule/policy, PSD and Title V permitting programs under the Clean Air Act apply to major sources and modifications of “regulated NSR pollutants.”
 - GHG are not now “regulated” and thus are not covered by these programs now
 - The first “regulation” of GHG will occur if Light Duty vehicle rule is promulgated in March 2010.
- Concerns about regulation of GHG stem from the fact that:
 - By statute, for Title V, the major source threshold is 100 tons/year.
 - By statute, for PSD, the threshold is 250 tons/year (100 tons/year for some categories).
 - At these levels for Title V, millions of smaller sources would be classified as major for GHG versus 15,000 now.
 - For PSD, tens of thousands of smaller new sources and modifications each year would trigger PSD versus 300 now.

How would the Tailoring Rule Address This?



- Proposes to raise the “major source” thresholds and PSD “significance levels”
 - PSD and Title V: major source size raised to 25,000 tons/year CO₂e (sum of 6 gases)
 - PSD significance level: raised to a number within the range of 10,000-25,000 tons/year CO₂e (sum of 6 gases)
- Facilities above these levels would still be required to obtain permits.
 - Facilities that remain covered are responsible for nearly 70 percent of stationary source GHG emissions.
 - Facilities proposed for exclusion comprise only 7 percent.

Additional Elements of Proposal



- EPA will identify measures it will consider for streamlining permitting.
- After 5 years, EPA will evaluate whether to change threshold, and if so, will do a rulemaking.
- Streamlined approach to get rule in place in States.
- EPA recognizes that States will need support when GHG BACT determinations are being made for the first time
 - A workgroup under CAAAC was formed in October 2009 to discuss major issues implementing PSD for GHG.
 - The workgroup will focus mainly on the Best Available Control Technology (BACT) requirement and identify and recommend information and guidance that would be useful for EPA to provide to permitting agencies.
 - Plan is for draft recommendations at the CAAAC's first meeting in 2010.

Timing



- The final Tailoring rule must be signed before the GHG vehicle rule is signed.
- EPA working to make the rule effective in all jurisdictions to allow application of the higher thresholds immediately.

Anticipated NAAQS Implementation Milestones



Pollutant	NAAQS Promulgation Date	Designations Effective	Attainment Demonstration Due	Attainment Date
PM _{2.5} (2006)	Sept 2006	Dec 2009	Dec 2012	Dec 2014/2019
Pb	<u>Oct 2008</u>	Nov 2010/2011 (extra time for new monitors)	June 2012/2013	Nov 2015/2016
NO ₂ (primary)	<u>Jan 2010</u> (Proposed <u>Jun 26, 2009</u>)	Feb 2012	Aug 2013	Feb 2017
SO ₂ (primary)	<u>June 2010</u> (Will be proposed <u>Nov 16, 2009</u>)	July 2012	Jan 2014	July 2017
Ozone	<u>Aug 2010</u> (Proposal target Dec 21, 2009)	Aug 2011	Dec 2013	Aug 2017 (Moderate) Aug 2020 (Serious)
CO	<u>May 2011</u>	June 2013	Dec 2014	May 2018
PM _{2.5} (2011)	Apr 2011	May 2013	May 2016	May 2018/2023

Underlined dates indicate court-ordered or settlement agreement deadlines.

EPA Issued Revised PM Standards in Sept 2006



	1997 Standards		2006 Standards	
	Annual	24-hour	Annual	24-hour
PM_{2.5} (Fine)	15 µg/m³ Annual arithmetic mean, averaged over 3 years	65 µg/m³ Yearly 98th percentile value, averaged over 3 years	15µg/m³ Annual arithmetic mean, averaged over 3 years	35µg/m³ Yearly 98th percentile value, averaged over 3 years
PM₁₀ (Coarse)	50µg/m³ Annual average	150µg/m³ 24-hr average (99 th percentile)	Revoked	150µg/m³ 24-hr average (singled expected exceedance)

New 24-hr nonattainment areas for 2006 PM_{2.5} standard



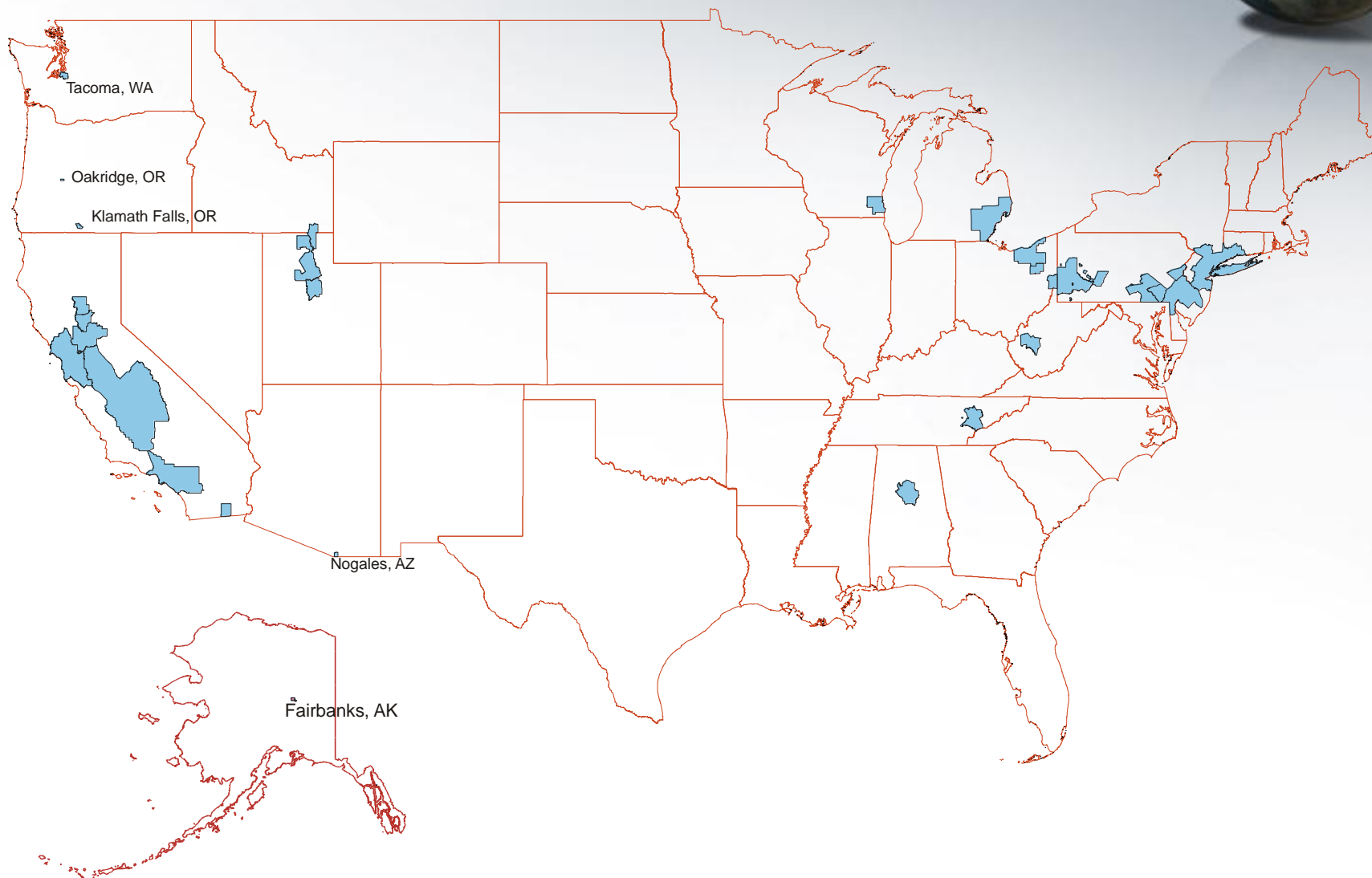
- Administrator signed final designations notice on Oct 8, 2009
- Designations published Nov 13, 2009; will be effective Dec 14, 2009
- State plans will be due in Dec 2012
- Attainment Date
 - Dec 2014
 - Extensions possible to Dec 2019

Areas designated nonattainment for 2006 PM2.5 NAAQS



<u>Designated Nonattainment Area</u>	<u>State</u>	<u>EPA Region</u>	<u>2006-08 24-hr Design Value</u>
Allentown	PA	3	36
Birmingham	AL	4	39
Canton-Massillon	OH	5	36 (2005-07)
Charleston	WV	3	36
Chico	CA	9	69
Cleveland-Akron-Lorain	OH	5	38
Detroit-Ann Arbor	MI	5	37
Fairbanks	AK	10	41
Harrisburg-Lebanon-Carlisle	PA	3	36
Imperial County	CA	9	36
Johnstown	PA	3	39 (2005-07)
Klamath Falls	OR	10	46
Knoxville-Sevierville-La Follette	TN	4	37 (2005-07)
Lancaster	PA	3	37
Liberty-Clairton	PA	3	53
Logan	UT-ID	8, 10	36
Los Angeles-South Coast Air Basin	CA	9	53
Milwaukee-Racine	WI	5	37
New York-N. New Jersey-Long Island	NY-NJ-CT	1, 2	38
Nogales	AZ	9	40
Oakridge	OR	10	40
Philadelphia-Wilmington	PA-NJ-DE	2, 3	36
Pittsburgh-Beaver Valley	PA	3	39
Provo	UT	8	44
Sacramento	CA	9	56
Salt Lake City	UT	8	48
San Francisco Bay Area	CA	9	36
San Joaquin Valley	CA	9	70
Tacoma	WA	10	44
Steubenville-Weirton	OH-WV	3, 5	41
Yuba City-Marysville	CA	9	47

2006 PM_{2.5} Nonattainment Areas



Counties in NYC Nonattainment Area



Nonattainment Area Name	State	Final Nonattainment Counties
New York, NY-NJ-CT	Connecticut	Fairfield New Haven
	New Jersey	Bergen Essex Hudson Mercer Middlesex Monmouth Morris Passaic Somerset Union
	New York	Bronx Kings Nassau New York Orange Queens Richmond Rockland Suffolk Westchester

Status of 1997 PM_{2.5} SIPs



- SIPs for the 1997 PM_{2.5} Standards were due April 2008
- Findings of Failure to Submit for missing SIPs will be signed by November 19, 2009 to avoid lawsuit
 - CT SIP submitted Nov 2008
- EPA working on Clean Data Determinations for areas eligible based on 2006-2008 data
 - CDD suspends the requirement to have attainment plan
- EPA developing strategy for taking action on submitted PM_{2.5} SIPs

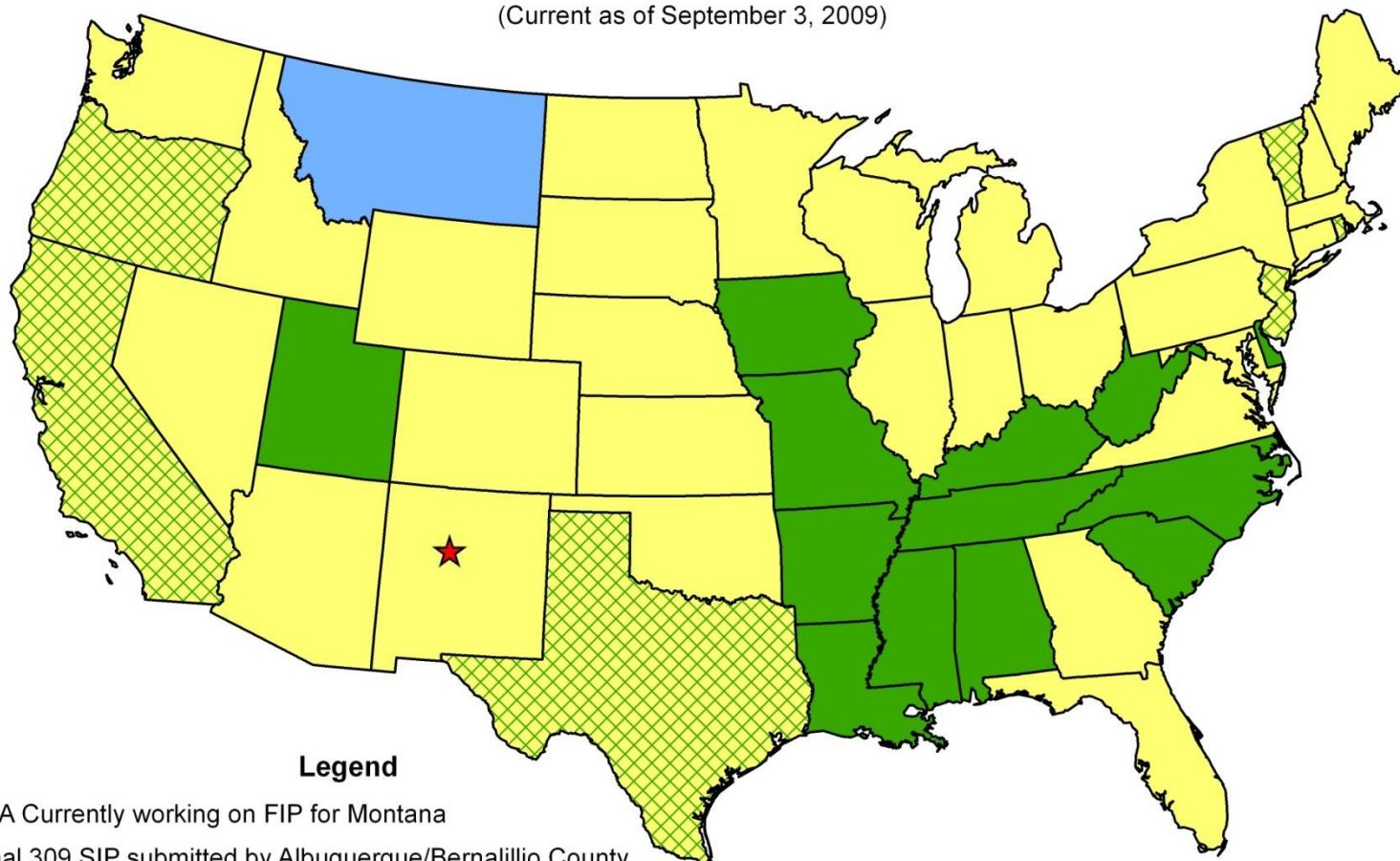
Status of Regional Haze SIPs








- Regional Haze SIPs were due Dec 2007
- 37 States received findings of failure to submit Regional Haze SIPs
 - Findings established a FIP deadline of January 15, 2011.
 - 6 of the state submitted final SIPs (CA, NJ, OR, RI, TX, VT)
- EPA working to get in SIPs from the States to avoid FIPs (CT proposed SIP in July 2009)
- EPA working to ensure nationally consistency in BART determinations

Findings of Failure to Submit for Regional Haze SIPs

(Current as of September 3, 2009)



Legend

-  EPA Currently working on FIP for Montana
-  Final 309 SIP submitted by Albuquerque/Bernalillo County
-  States that submitted SIPs prior to Findings (13)
-  States on the Findings List that have submitted Final SIPs (6)
-  States on the Findings of Failure to Submit List (35 including AL, HI & VI)

Note: Alaska, Hawaii, and the Virgin Islands are also on the Findings List

- EPA is preparing a FIP for Hawaii and assisting the Virgin Islands with preparing SIP (possible FIP)

2008 Ozone Standard



- Primary level set at 0.075 ppm
- Secondary level set equal to Primary
- Challenged in court
- 2008 standards were not as protective as recommended by the Clean Air Scientific Advisory Committee (CASAC)
 - 0.060 to 0.070 ppm for the primary ozone NAAQS
 - 7.5 to 15 ppm-hour for a seasonal W126 welfare-based (secondary) ozone NAAQS
- On Sept 16, 2009, EPA announced it will “reconsider” the 2008 standard
- The reconsideration will be based on the scientific and technical record used in the March 2008 review, which included more than 1,700 scientific studies.

Expected Reconsideration Schedule



- Proposed Reconsidered NAAQS.....Dec 2009
- Proposed Implementation rule.....early 2010
- Final Reconsidered NAAQS.....Aug 2010
- Final Implementation rule.....late 2010
- Final Designations.....Aug 2011
- SIPs due.....Dec 2013
- Attainment deadlines
 - Marginal.....Aug 2014
 - Moderate.....Aug 2017
 - Serious.....Aug 2020

CAIR Replacement Rule



- December 2008 D.C. Circuit Court decision remanded CAIR and FIPs without vacatur
- CAIR was designed to help address 1997 ozone and PM_{2.5} NAAQS
- Court ruled against EPA on issues relating to:
 - Quantification and elimination of significant contribution
 - Interference with maintenance
 - How EPA constructed the regional cap-and-trade programs
 - State NO_x and SO₂ emission budgets
 - NO_x fuel factors
 - Use of Title IV SO₂ allowances for compliance in the CAIR SO₂ cap-and-trade program
 - Timing of the second phase
 - Inclusion of Minnesota for PM_{2.5}

Major Issues to Address



- EPA needs to address critical issues including:
 - Which ozone and $PM_{2.5}$ NAAQS to address beyond 1997 standards
 - Approaches to defining significant contribution and interference with maintenance
 - Determines which states will be in the program and stringency of rule
 - Which source categories to include in the program
 - Regulatory approaches to “prohibit emissions that significantly contribute” to nonattainment or interfere with maintenance
 - What is the right combination of SIPs and FIPs to achieve reductions expeditiously

Next Steps



- Complete Analyses:
 - New air quality modeling analyzing upwind state contributions to downwind areas
 - Costs and other impacts of various regulatory approaches; technical feasibility; etc.
- Coordination with other air program activities:
 - Consideration of utility MACT, revised NAAQS, BART, RACT, Section 126 petitions of NC and DE, interactions with Title IV
- Schedule:
 - Signature on proposal - March/April 2010
 - Signature on final rule - Spring 2011



Implementation of the 1997 8-hour Ozone Standard

Clean Air Act Section 185 fee requirement



- Applies to Severe and Extreme nonattainment areas that failed to attain the 1-hour ozone standard by their attainment date.
- Clean Air Act required fee program SIPs from states by December 31, 2000.
- EPA had previously waived the program when it revoked 1-hour ozone standard.
- D.C. Court ruled in Dec. 2006 that EPA improperly waived the application of the section 185 fee provision.

Summary of Section 185 Requirements



- When an area fails to attain the ozone standard by the required date (Nov 15, 2007 for NYC area), CAA requires each major stationary source of VOCs and NOx sources to pay a fee to the state for each calendar year following the attainment year for emissions above a baseline amount.
- CAA set the fee as \$5,000 (adjusted for inflation) per ton of VOC and NOx emitted by the source during the calendar year in excess of 80 percent of the “baseline amount.”

Federal Action



- EPA will be starting sanctions clocks for states for states have not made the required SIP submission and have failed to attain by their attainment date.
- Sanctions apply in 18 months (Offset sanction) and 24 months (Highway funding sanction) if SIP not submitted.
- EPA required to impose Federal Implementation Plan (FIP) within 2 years if the state has not submitted and EPA has not approved the required SIP.
- Under a FIP, EPA would administer and enforce §185 requirements, and collect fees.

CTGs Issued in 2006, 2007 and 2008



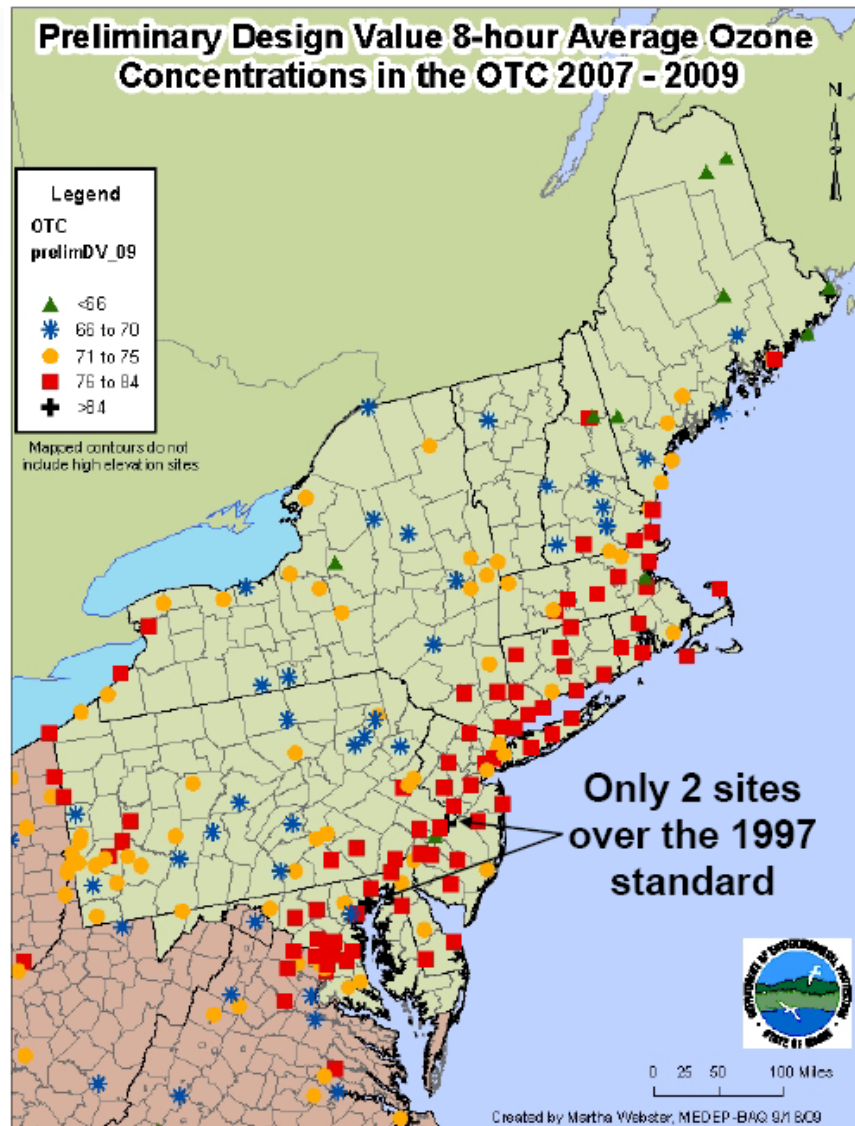
- CAA requires State to submit RACT rules for any Control Techniques Guideline (CTG) document that EPA issues.
- **Four** new CTGs were issued in **September 2006**
 - Flat Wood Paneling Coatings
 - Flexible Packaging Printing Materials
 - Industrial Cleaning Solvents
 - Lithographic Printing Materials and Letterpress Printing Materials
- **Three** new CTGs were issued in **September 2007**
 - Large Appliance Coatings
 - Metal Furniture Coatings
 - Paper, Film, and Foil Coatings
- **Five** new CTGs were issued in **October 2008**
 - Miscellaneous Metal Products Coatings,
 - Plastic Parts Coatings,
 - Auto and Light-Duty Truck Assembly Coatings,
 - Fiberglass Boat Manufacturing Materials, and Miscellaneous
 - Industrial Adhesives

Implementation of the 1997 8-hour Ozone Standard



- On May 8, 2009, EPA proposed disapproval of the Ozone attainment plan for the CT portion of the NYC Nonattainment Area
 - *“Connecticut’s demonstration does not provide the level of compelling evidence needed/required for EPA to have confidence that this nonattainment area will attain the ozone standard by the June 2010 deadline.”*
 - *“Connecticut’s attainment demonstration relies in part on ... regulations ... not yet ... submitted to EPA for approval ...”*
- EPA reopened the public comment period through August 7, 2009 based on request from CT DEP.
- CTDEP urged EPA to wait until the end of the 2009 ozone season before taking final action.

Current Ozone Design Values



Preliminary Ozone Design Values for 2007-2009 prepared by ME DEP

Note: Red (■) and Black (✚) symbols represent monitors > 75ppb Ozone

Questions & Answers



- Reminder: Can't take comments on pending rulemakings if comment period is open